SHORT REPORT

Medical training in the UK fire service

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In 2005 the Faculty of Prehospital Care (Royal College of Surgeons of Edinburgh) were approached by two UK fire services for advice on trauma training relevant to their practice. No national standard was found regarding the medical knowledge, skills or equipment required for a UK firefighter. A paper survey was sent to the chief fire officer of the 62 fire services in the UK asking which medical skills were currently taught and practised in their service. The response rate was 84% and there was little consensus in utilised skills. The Faculty of Prehospital Care supports the development of a national standard and training model for medical training in the UK fire service, which should cover non-invasive techniques of resuscitation suggested in this article.

In 2005, the Faculty of Prehospital Care (Royal College of Surgeons of Edinburgh) were approached by two UK fire services for advice on trauma training relevant to their practice. On further investigation, we found that there is no national model and no consensus of opinion regarding the medical knowledge, skills or equipment required for a UK firefighter.

A search of Ovid Medline 1966 to week 2 July 2006 using the following terms: fire fighter$.mp or firefighter$.mp or fire service.mp or fire brigade.mp and limit to (humans and English language) yielded 743 articles, of which none were relevant to the subject.

We therefore conducted a survey of all UK fire and rescue services in an attempt to define a snapshot of current practise and to provide future recommendations for training of fire fighters.

METHODS

A paper survey was sent to the chief fire officer of the 62 fire services in the UK asking which medical skills were currently taught and practised in their service. In addition, we asked whether the fire service underwent joint training with their regional ambulance service and whether there was any dialogue between services regarding the skill base delivered by the fire service. Space was given for officers to mention additional skills used by their fire service or to make comments on their thoughts on this subject.

RESULTS

Completed surveys were received from 52 services giving a response rate of 84%. Table 1 shows the results.

In addition to the above, other skills mentioned were the use of a laryngeal mask airway by one fire service; three services use suction devices; 11 use ventilators with a mask to provide ventilation; five use a pocket mask rather than a bag–valve–mask; and one service uses Entonox for analgesia.

A total of 42 (80.8%) services said that they did have some joint training with their local ambulance service and 41 (78.8%) said that there was some dialogue between the fire and ambulance services regarding the skill base delivered.

UK fire services are using a variety of methods to gain training in medical skills including paying private companies, using inter service training, liaising with ambulance services or involving local British Association for Immediate Care Scheme doctors.

DISCUSSION

The Fire and Rescue Service National Framework 2006–8 states ''the principal aim of an emergency response is to reduce deaths and the number and severity of injuries. If outcomes can be improved by adapting services or working with other providers to improve life safety services these are encouraged. For example, some authorities are already using defibrillation equipment and others are engaged in co-responder schemes, which are saving the lives of people who have suffered cardiac arrest, including firefighters.''[1]

It is essential for firefighters to be trained in basic medical skills. In some regions, they are often the first responder on scene and can provide initial emergency care to patients before the arrival of ambulance personnel. They need to be trained to provide medical care to their firefighter colleagues on scene where ambulance crews cannot gain access (eg, in confined or burning space) or where medical help is delayed. Importantly, they should be able to assist the ambulance service and work in collaboration to improve outcomes for patients.

We are aware that the Chief Fire Officers Association has consulted with the Joint Royal Colleges Ambulance Liaison Committee about the level of care delivered, and the associated clinical governance requirements. In addition, the Ambulance Service Association, the Office of the Deputy Prime Minister and the Department of Health are working together to determine a shared response across the emergency services (T Clarke, personal communication, 2006). The diversity of clinical skill levels reported in this study illustrates the need for a national competency-based training programme, which will be quality assured and compliant with clinical governance standards.

For these reasons, the Faculty of Prehospital Care fully supports the development of a national generic course concentrating on non-invasive skills, which we believe will be adequate to handle the majority of prehospital care emergencies. Box 1 suggests a lists of these skills.

CONCLUSION

Currently there are no national standards of medical knowledge or skills in the UK fire service. The Faculty of Prehospital Care supports the development of a national standard and training model for medical training in the UK fire service, which should cover non-invasive techniques of resuscitation.

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Table 1 Results of survey showing which medical skills are being utilised by UK fire services

Skill	Yes, n (%)	No, n (%)
Airway		
Head tilt	51 (98.1)	1 (1.9)
Jaw thrust	50 (96.2)	2 (3.8)
Oropharyngeal airway	41 (78.8)	11 (21.2)
Nasopharyngeal airway	4 (7.7)	48 (92.3)
Breathing		
Oxygen	52 (100)	0
Asherman chest seal	3 (5.8)	49 (94.2)
Pulse oximetry	7 (13.5)	45 (86.5)
Bag-valve-mask ventilation	37 (71.2)	15 (28.8)
Circulation		
Dressings	52 (100)	0
Elevation	52 (100)	0
Tourniquets	6 (11.5)	46 (88.5)
Disability		
AVPU	49 (94.2)	3 (5.8)
Glasgow Coma Score (GCS)	12 (23.1)	40 (76.9)
Spinal care		
Manual in-line stabilisation	49 (94.2)	3 (5.8)
Cervical collar	37 (71.2)	15 (28.8)
Kendrick extrication device	23 (44.2)	29 (55.8)
Spinal board	43 (82.7)	9 (17.3)
Cardiac arrest		
Automated external defibrillator	21 (40.4)	31 (59.6)

AVPU, Alert, responds to Voice, responds to Pain, Unresponsive.

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REFERENCES

1 **Office of the Deputy Prime Minister**. The Fire and Rescue Service National Framework 2006–8. London: Office of the Deputy Prime Minister, 2006.

Box 1 List of prehospital skills for firefighters

- Airway management
  - Assessment of airway
  - Removal of foreign body (including choking)
  - Use of suction
  - Jaw thrust (head tilt/chin lift)
  - Oropharyngeal airway
  - Nasopharyngeal airway
- Breathing
  - Assessment of chest by inspection/palpation
  - Use of oxygen
  - BVM ventilation (2 person technique)
  - Asherman chest seal
  - Splinting of flail chest
- Circulation assessment of pulse and external haemorrhage
  - Direct pressure/elevation
  - Tourniquets
- Disability
  - Assessment of AVPU (Alert, responding to Voice, responding to Pain, Unconscious score)
- Spinal management
  - Manual in line stabilisation
  - Collar sizing and application
  - Use of spinal board and scoop stretcher
  - Use of Kendrick extrication device
- Burns
  - Cooling and dressings
- Cardiac arrest
  - Basic life support
  - Use of automated external defibrillator